

Abstract Submitted
for the DAMOP07 Meeting of
The American Physical Society

Sorting Category: 1. (E)

**Anisotropy Dependent Circular Polarization Spectra
in Cs $6p^2P_{3/2}$ level¹** BURCIN BAYRAM, RAMESH MARHATTA,
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University, Oxford, Ohio 45056 — Experimental investigation of the
cesium $6s^2S_{1/2} \rightarrow 10s^2S_{1/2}$ two-photon circular polarization spectra has
been made. The time evolution of anisotropies, namely orientation and
alignment state multipoles, in the excited state and their effects to the
circular polarization spectra have been shown. Collisions between the
excited level cesium atoms and the ground level argon atoms in the gas
phase yielded anisotropy dependent depolarization cross section to be
extracted from the measured circular polarization degree. Experimental
details and the results will be presented.

¹Supported by the Research Corporation CC6119.

Prefer Oral Session
 Prefer Poster Session

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Date submitted: 01 Feb 2007

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